



## Improved Cognitive Performance in Young Adults

In a double blind, placebo controlled cross over study, 30 healthy participants (20 -29 years old) were given a *Salvia officinalis* extract or placebo and tested for stress, mathematical processing, word processing, response time, memory and mood. Improved mood and cognitive performance were noted after a single dose administration of 300 mg sage extract<sup>5</sup>.

## Other Studies

### Sibelius™:Sage, a Unique Ingredient

The challenge has been to identify the unique characteristics of Sibelius™:Sage over other sage extracts, obtained from different sources and extraction procedures. Using Chronoscreen™, Sibelius Natural Products' patented technology, we have been able to demonstrate that there is a significant difference in the biological activity of Sibelius™:Sage, over other sage extracts (Fig. 2).

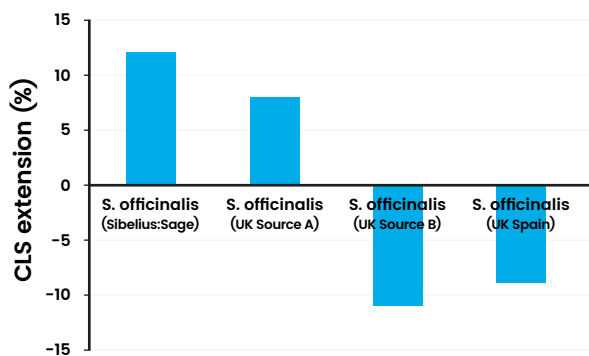
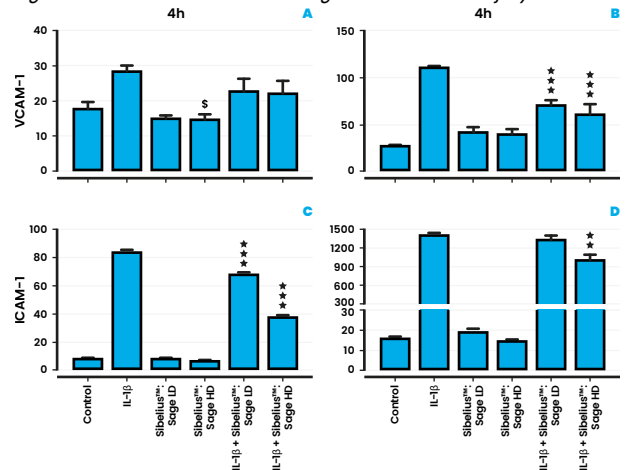


Figure 2. Chronological Life Extension (CLS Extension) is measured using Sibelius' patented Chronoscreen™ technology, and allows for the identification of biologically active natural products in the model organism *C. elegans*. Sibelius®:Sage shows increases in lifespan of around 10-15%.

## Anti-inflammatory Effects of Sibelius™:Sage

Circulating inflammatory markers, including the vascular injury markers Intercellular Adhesion Molecule-1 (ICAM-1) and Vascular Cell Adhesion Molecule-1 (VCAM-1), have been noted in patients with cognitive disease such as AD<sup>9-12</sup>. Sibelius™:Sage caused a significant reduction in the basal level of release of VCAM-1, as well as IL-1β induced conditions in human cells (Fig. 3 A & B). Sibelius™:Sage also caused a significant reduction in ICAM-1 in IL-1β induced *in vitro* (Fig. 3 C & D), as well as other inflammatory markers (data not shown).

Figure 3. Effects of Sibelius™:Sage on vascular injury markers.



VCAM-1 (A & B) and ICAM-1 markers (C & D) were tested in human adipocyte cells after 4h (A & C) or 24h (B & D) exposure to either a low dose (LD; 5µg/ml) or high dose (HD; 50µg/ml) of Sibelius™:Sage in the presence or absence of stimulation with IL-1β (0.5ng/ml).

## Awards & Certifications



## Citations

- Scholey A.B. et al. (2008), *Psychopharmacology*, 198: 127-139.
- Sibelius™:Sage Patent (pending): WO 2017/129987 A1, published August 3, 2017.
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\* These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

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Hermes Consilium Ltd. is the official and exclusive distributor of Sibelius™:Sage in your region. We look forward to assisting you with more information on the ingredient or finished products, into which the ingredient is formulated.

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